

Remarks/Arguments:

Reconsideration of this application in light of the above amendments and following comments is courteously solicited.

The examiner rejected previously submitted claims 3 and 5 under 35 USC 112 as being indefinite. More particularly, the examiner objected to the language "Y picture" as not being an accepted term of art nor properly defined in the specification. In response to this requirement, Applicant has amended claims 3 and 5 to delete the reference to "Y picture" in favor of the term "luminance component (Y)". It is submitted that claims 3 and 5 as amended comply with the formal requirements of 35 USC 112, second paragraph. In this regard the following should be noted. MPEG has 3 pictures (I/B/P) and MPEG picture contains 3 information on Luminance and Chrominance. Y represents luminance channel (value) and Cb and Cr represent chrominance channel (value) in MPEG technology. In light of the foregoing, it is submitted that all of the claims as pending comply with the formal requirements of 35 USC 112, second paragraph.

The examiner rejected previously submitted claims 1 and 3-5 under 35 USC 102 as being anticipated by US Patent 7,257,261.

The teachings and disclosure of the Suh '261 document when compared to the present invention offer the following clear distinctions.

1. In Suh's invention, DC coefficient extractor extracts previous I-frame and current I-frame's DC coefficient while the present invention's Luminance selection unit extracts DC coefficient of Luminance components of chosen I-frames.

A. Suh's invention's coefficient extractor extracts previous and current I-frame's DC coefficient.

B. But the present invention extracts the Luminance value's DC coefficient.

2. In Suh's invention, DC histogram extractor extracts the histogram difference between previous I-frame's DC value and current I-frame's DC value while the present invention's DC histogram generation unit extracts cumulated histogram value for Luminance value(Y).

A. Suh's invention's histogram extractor extracts the difference between previous and current I-frame's DC value.

B. But the present invention's histogram generation unit extracts the cumulative histogram value for Luminance value(Y), not I-frame's DC value.

3. In Suh's invention, one must compare histogram's difference (Error) with its threshold value (E_{thre}) to decide if the histogram difference is a "hard-cut" and to decide if the I-frames are in "stabilization section", while the present invention does not need any comparison.

A. In Suh's invention Error and E_{thre} must be compared with to decide if the difference is a hard-cut (meaning a sharp difference between frames), and to decide if the I-frames are in 'stabilization section' (which means that in one stabilization section, the frames are not changing drastically so that the first frame in a section can be taken as a still image for the section).

B. But the present invention does not compare frames, because the present invention uses n-th order approximation scheme which is described in 4.

4. In Suh's invention, it needs a 'blank tester' to check if the picture is a 'dark picture' from the lights or environment, while the present invention extracts n-th order approximation line and n-th order approximation tangent point from the curve of frame distance cumulative histogram.

A. Suh's invention teaches about blank tester to decide if the picture is good for still image.

B. But the present invention uses n-th order approximation line and n-th order approximation tangent point from the curve of frame distance cumulative histogram

to get n still images from the video(n is the input number the user has entered).

C. There can be any i-th order approximation line which is the cumulative histogram from the Luminance value(Y) of I-frames of an input MPEG video, and the user can predetermine the number of still images.

D. And the present invention does not need any blank tester or threshold comparison for a still image while Suh's invention does.

Amended independent claim 1 sets forth the structure of the apparatus for extracting the representative still image which distinguishes over and clearly patentably defines over the Suh '261 reference. Accordingly, it is submitted that claims 1 and 3-5 as amended clearly define over the '261 document.

With regard to the secondary reference cited by the Examiner, namely, Jeannin et al. 7,333,712, the following should be noted. Jeannin discloses 'a user designates a plurality of frames from a video source as keyframes' but neither Jeannin nor Suh discloses n-th order approximation line and tangent point (where, n is the positive integer and user input value). Although Jeannin's disclosure of user input number of frames from a video source, the present invention discloses n-th order approximation line which is the result of the distances of cumulative histogram of I-frames' Luminance value(Y), where n is positive integer and user input value, which is not disclosed neither in Suh nor in Jeannin.

In light of the foregoing, it is respectfully submitted that amended independent claim 1 and independent method claim 4 clearly define over the cited and applied prior art references and the issuance of a formal notice of allowance is respectfully requested.

An earnest and thorough attempt has been made by the undersigned to resolve the outstanding issues in this case and place same in condition for allowance. If the Examiner has any questions or feels that a telephone or personal interview would be helpful in resolving any outstanding issues which remain in this application after consideration of this amendment, the Examiner is courteously invited to telephone the undersigned and the same would be gratefully appreciated.

It is submitted that the claims as amended herein patentably define over the art relied on by the Examiner and early allowance of same is courteously solicited.

If any fees are required in connection with this case, it is respectfully requested that they be charged to Deposit Account No. 02-0184.

Respectfully submitted,

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